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CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.
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1. Scientific Research Institute 49 (NII 49) had previously been designated NII MSP (Ministerstvo Sudostroitel'naya Promyshlennost' -- Ministry of Shipbuilding Industry). NII 49 was located on Gospital'naya ulitsa in Leningrad and was controlled by Department IX or II of the MSP, located at No. 1 Petroverigskiy pereulok, Moscow. The MSP was represented by Tretyakov (fnu), who visited the institute once or twice a year and took particular interest in the gyroscopic group. Mummert, a German expert of the gyroscopic group, had met Tretyakov before the war in Berlin when Tretyakov visited the Askania Plant. It was not determined whether Tretyakov was Minister of Shipbuilding Industry, Deputy Minister, State Secretary, or a departmental chief at the ministry. Requests for repatriation and complaints were submitted to him. In late 1948 or early 1949, the former designation NII MSP -- Leningrad was changed to NII 49. In October 1946, when the German experts arrived, the institute occupied only the area north-northeast of Gospital'naya ulitsa; buildings southwest of the ulitsa were still being reconditioned or under construction with the help of German PWs. In 1949, the new buildings were taken over by the institute (see sketch of NII 49 on page 5). NII 49 was involved in development work to include the production of an experimental series of instruments and was also in charge of training young engineers. The work force included 2,000 to 3,000 Soviets.
2. NII 49 was composed of the following departments: the management; Department I, with the personnel section and the classified document section, where all files and records had to be turned in every night; Department II, for the development and designing of computers and antiaircraft rockets; Department III, for the development and designing of radar equipment; and the Designing Department, which was directly assigned to the chief designer of the institute (see Table of Organization and personnel lists on pages 7 & 8).
3. Prior to about May 1949, the German experts of Department II and the Staff of Dr. Wilde's tube laboratory worked in an old institute building. the German personnel of Department III worked in another building. After mid-1949, all

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German laboratories controlled by Department II had to evacuate these buildings and move to the upper floor of a new building, probably because of a tightening of security measures for Department III. [redacted] Wolff was replaced by a Soviet named Bystrov (fnu).

4. Before May 1949, Wolff's laboratory was inadequately equipped with tools and materials; in order to construct some improvised instruments, he had to steal the necessary tools and materials. No actual laboratory work was conducted until mid-1949, when supplementary equipment arrived from the ~~Gema~~ Plant in Berlin-Koepenick. This equipment included German voltage and current meters, broad band oscillographs, and standard signal generators. Wolff worked on an American Triumph-type oscillograph and on a standard signal generator of American origin. The carpentry shop, with a work force of ten Soviets, was well equipped with planing machines, disc saws, etc. The crates manufactured there had a capacity of about one cubic meter and were probably designed for the shipping of experimental instruments. No further information on institute equipment was obtained.
5. The institute library was well equipped with up-to-date material and was still further improved after 1949 or 1950. All the necessary technical literature was available. Foreign literature included a complete set of American MIT publications, the technical magazines Proceedings of the IRE, Electronics, Journal, Plastics, Proceedings (English edition); all East German technical magazines, ZAMM (Journal for Applied Mathematics and Mechanics); and all VDI (Verein Deutscher Ingenieure) publications.
6. The projects assigned to the German experts were as follows: (1) to redesign all German-type parallax computers for the Wasserfall antiaircraft rocket which was being reconstructed by the Soviets, (2) to do research work on the Rhein-tochter and Schmetterling antiaircraft rockets, and (3) to develop and construct an experimental series of a gyroscopic computer for tau angles. All these projects were completed.
7. In December 1946, the Soviets requested designs for various high-frequency measuring instruments, including an output meter for ten-kilowatt pulse power, an output meter for decimeter and centimeter waves, a standard signal generator for decimeter waves, and the stabilization of a decimeter transmitter.
8. In summer 1948, Wolff was ordered to write a study on how to effect a quick regeneration of receivers after excessive impulsive strain. This problem had existed before, and the study presumably contained nothing new in this field.
9. Another order received in spring 1949 concerned the development of a measuring instrument to determine the $\epsilon + tg \delta$ factor on insulating substances. Such measuring equipment was not new.
10. In late 1949, Wolff received an order for the development of an electronic multiplication device. He solved the problem by utilizing his experience in the field of impulse techniques. The multiplication system was based on the theory that the figures "a" and "b" to be multiplied could be represented by series of impulses. Both series of impulses were transmitted to the grid of a thermionic tube which would let the impulses pass only when both series met, thus producing an impulse-shaped anode current indicating the product.
11. At about the same time, Wolff was ordered to develop a differentiating unit which at a high degree of accuracy was to produce the first and second differential quotient of a function of time. This type of computing was conducted electrically by an a.c. circuit with capacitance and resistor. It was discovered that a reduction of resistance caused not only an increase of accuracy of the differential quotient, but also a decrease of amperage which, in turn, led to difficulties in measuring operations. This handicap was overcome by a special equivalent circuit which considerably improved the precision of these systems.
12. Wolff, furthermore, designed an instrument to produce the functions sine alpha and cosine alpha, the angle alpha being indicated by the voltage. By continual

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development from late 1949, an instrument was perfected to obtain the products $K \times \sin \alpha$ and $K \times \cos \alpha$, with factor K being represented by the voltage.

13. The instruments described in paragraphs 10 and 12 were developed as components of an electric computer. These computers had the advantage of operating about a thousand times faster than mechanical computers and could be applied in all technical fields, for example, in the remote-control systems of rockets. The rudder signals transmitted to an airborne rocket depended not only on the initial positions of the projectile and of the target, but also on the momentary flight phase of the projectile. The remote-control unit therefore required a computer that could instantaneously convert the data continuously fed into it into control signals. Wolff considered his designs as his intellectual property, although developments in this field represented no striking innovation, and he repeatedly mentioned that these systems would scarcely be of great interest.
14. Wolff worked on about 30 small projects of minor importance. In October 1950, the Soviets ordered all work discontinued.
15. Another group of German experts including Dr. Krochmann and Dr. Schmiedeck worked at NII 400 in the northern part of Leningrad. Krochmann and Schmiedeck lived together with the Germans of NII 49 and their address likewise was Postfach 509. No post box was assigned for correspondence within the USSR. Krochmann and Schmiedeck were allegedly repatriated.
16. Krochmann and Schmiedeck stated that a branch institute of NII 400 was located in Oranienbaum.¹ The German group at Oranienbaum was billeted in Menshikov Castle. The group was allegedly much larger than the Leningrad group. Both groups used Postfach 510 for mail from abroad and Postfach 24 for mail from within the USSR. The chief director of both institutes was Grudnitskiy (Gnu), who allegedly had been manager of the Gema Plant in East Berlin after the German surrender. From Ing. Laekmaeker (REG-168) [redacted] all German experts of the Oranienbaum group had returned from Leningrad.
17. Most of the deported television experts had worked in the Svetlana Plant, which was generally referred to as Engels prospekt in Leningrad. These engineers were billeted in the former Orlava Club (sic). This group had Postfach 522 for foreign mail but no special post box for domestic mail. During winter 1950, almost the entire group was allegedly repatriated, except for Dr. Paul Kotowski and his brother Hans Kotowski, Dr. Hans Kaufmann from the Siemens Firm, Dr. Gross, Feussner, and Dr. Ammon, who were transferred to the Leningrad Television Institute, where they allegedly were still being kept. It was learned that Paul Kotowski and Kaufmann had joined the group at the Svetlana Plant at a later date. The Leningrad Television Institute, located in Leningrad-North at the terminal station of streetcar No. 9, had a television transmitter located in its vicinity. A branch department, the Wald Institute² was located in Leningrad/Ozerki, another northern part of the city.
18. Dip. Ing. Holler was reportedly working in Makhachkala (N 42-59, E 47-31). No further details were available.
19. A group of experts from the Zeiss Plant, including chief designer Straube and a Professor Hauser, had allegedly returned from the GOMZ and Progress Plants in Leningrad. It was mentioned that Ing. Laekmaeker was probably in communication with Straube.
20. Joseph Nathaus, who allegedly was living in Hamburg in 1954, had worked with the Statetsny-Nay Group. During the period of his deportation, Nathaus had been temporarily detained in the Komi and Arkhangelsk convict camps.
21. NII 49 was guarded by male and female MVD personnel. Soviet personnel in charge of the German billets included a commander-in-chief, a commander, and female interpreters used as escorts. The Germans had to request an escort from the commander one day in advance in order to leave the billeting area. Due to the shortage of escorting personnel, the Germans often were unable to leave the restricted area. Restrictions over the Germans while at work were increased after 1949, when all laboratories were moved into one building.

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24. An attempt by the Soviet commander to begin political indoctrination of the German experts was greatly objected to by the Germans and subsequently no political training was conducted. The Germans often listened to the programs of Radio RIAS and of the BBC. Reception was good.

1. Comment: Oranienbaum is now known as Lomonosov (N 59-55, E 29-46).
2. Comment: "Wald Institute" is a German misnomer for Lesnoy Institute

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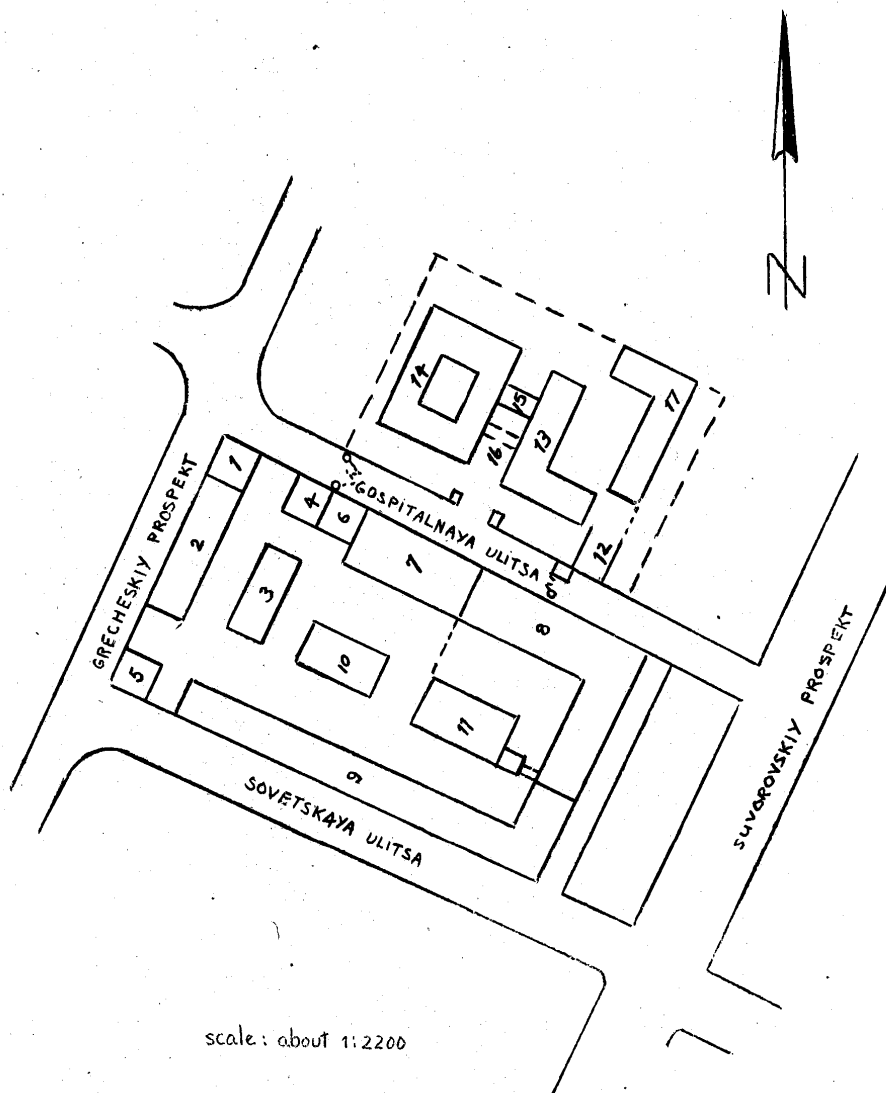
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Sketch of NII 49



Legend: see next page

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Legend to Sketch of NII 49

1. Two-story section of building 2 (German laboratories after 1949)
2. Three-story building (glass works and carpenter shop)
3. Two-story lathe shop
4. Two-story guard house
5. Electric welding shop
6. Two-story varnishing shop
7. Five-story administration building
8. New five-story laboratory building
9. Two-story galvanizing shop with workshops
10. Three-story foundry with workshops
11. Rooms for assembly (laboratory on second floor)
12. Two-story main guard house
13. Designing offices, jig drilling shop, telephone switchboard, technical library, and, prior to May 1949, laboratories of Department II for the German experts
14. Four-story building (laboratories of Department III and the plant management)
15. Connecting path
16. Underground connecting path
17. Garages

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TABLE OF ORGANIZATION OF NII 49

Management

Director: Charin (fnu)
 Chief engineer: Probably Dubrovskiy (fnu)
 Chief designer: Unknown
 Chief technologist: Unknown
 Chief, personnel section and MVD: Zhuchkov (fnu)

Department I

Personnel and Classified Document Department (No information)

Department II (Computers and Antiaircraft Rockets)

Chief: Zaytsev (fnu), chief engineer until 1951/1952
 Development group
 Designing group
 Soviet laboratories
 German laboratories
 a. Soviet chief: Klaritskiy (fnu)
 b. German chief: Mummert
 Workshops

Department III (Radar Equipment)

Chief: Sladkin (fnu)
 Development group
 Designing group (After mid-1949 the German laboratories were controlled by Department II)
 Soviet laboratories
 a. Antenna laboratory
 b. Transmitter laboratory
 c. Receiver laboratory
 d. Tube laboratory
 Dr. Wolff's laboratory
 Dr. Wilde's private laboratory (spectrometric material analysis; after 1948, moving field tubes)

Designing Department

Chief Designer: Valkov (fnu)

ASSESSMENTS OF SOVIET PERSONNEL

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